

290578US0XPCT.ST25.txt
SEQUENCE LISTING

<110> Ishida, Nobuhiro
Tokuhira, Kenro
Nagamori, Eiji
Takahashi, Haruo
Saito, Satoshi
Ohni Shi, Tohru

<120> Promoter in the presence of organic acid and utilization thereof

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<140> 10/578,614
<141> 2006-05-08

<150> PCT/JP04/16799
<151> 2004-11-05

<150> JP 2003-379076
<151> 2003-11-07

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<170> PatentIn version 3.4

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 cat gtc ccc cag aat aag att aca att gtt ggg gtt ggt gct gtt ggc 96
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 20 25 30
 atg gcc tgt gcc atc agt atc tta atg aag gac ttg gca gat gaa gtt 144
 Met Ala Cys Ala Ile Ser Ile Leu Met Lys Asp Leu Ala Asp Glu Val
 35 40 45
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 50 55 60
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 Leu Gln His Gly Ser Leu Phe Leu Arg Thr Pro Lys Ile Val Ser Gly
 65 70 75 80
 aaa gac tat aat gtg aca gca aac tcc agg ctg gtt att atc aca gct 288
 Lys Asp Tyr Asn Val Thr Ala Asn Ser Arg Leu Val Ile Ile Thr Ala
 85 90 95
 ggg gca cgt cag caa gag gga gag agc cgt ctg aat ttg gtc cag cgt 336
 Gly Ala Arg Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln Arg
 100 105 110
 aac gtg aac atc ttt aaa ttc atc att cct aat att gta aaa tac agc 384
 Asn Val Asn Ile Phe Lys Phe Ile Ile Pro Asn Ile Val Lys Tyr Ser
 115 120 125
 cca aat tgc aag ttg ctt gtt gtt tcc aat cca gtc gat att ttg acc 432
 Pro Asn Cys Lys Leu Leu Val Val Ser Asn Pro Val Asp Ile Leu Thr
 130 135 140
 tat gtg gct tgg aag ata agt ggc ttt ccc aaa aac cgt gtt att gga 480
 Tyr Val Ala Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Glu
 145 150 155 160
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 165 170 175
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 180 185 190
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 His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly
 195 200 205
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 Page 5

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Lys	Val	Thr	Leu	Thr	His	Glu	Glu	Glu	Ala	Cys	Leu	Lys	Lys	Ser	Ala	
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130 135 140

Tyr Val Ala Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly
145 150 155 160

Ser Gly Cys Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu
165 170 175

Arg Leu Gly Val His Pro Leu Ser Cys His Gly Trp Ile Leu Gly Glu
180 185 190

His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly
195 200 205

Val Ser Leu Lys Asn Leu His Pro Glu Leu Gly Thr Asp Ala Asp Lys
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Glu Gln Trp Lys Ala Val His Lys Gln Val Val Asp Ser Ala Tyr Glu
225 230 235 240

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245 250 255

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275 280 285

Leu Ser Val Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser Asp Val Val
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atatatgcgg ccgcatccga attcaatgta gcacc
35

<210> 35
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<400> 35
atatatacta gtgttttggt gtggttattg gtagtac
37

<210> 36
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<400> 36
agctagctag cggccgcgat ggaagatgca acttgcaaat gtagtcc
47

<210> 37
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<220>
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<400> 37
agctagctac tagtgttatt ttcttctttt gttctgtggg ttaaagg
47

<210> 38
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<212> DNA
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<220>
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<210> 39
<211> 47
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<220>
<223> Synthetic primer

<400> 39
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<211> 42
<212> DNA
<213> Artificial Sequence

<220>
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<400> 40
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<210> 41
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<220>
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<400> 41
tatatactag ttgattgat ttgactgtgt tattttg          37

<210> 42
<211> 1052
<212> DNA
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<220>
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<220>
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<222> (13)..(1011)

<400> 42
acagaattca ca atg gct act ttg aaa gat caa ttg att caa aat ttg ttg      51
             Met Ala Thr Leu Lys Asp Gln Leu Ile Gln Asn Leu Leu
             1           5           10

aaa gaa gaa cat gtt cca caa aat aaa att act att gtt ggt gtt ggt      99

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Lys	Glu	Glu	His	Val	Pro	Gln	Asn	Lys	Ile	Thr	Ile	Val	Gly	Val	Gly	
15						20					25					
gct	ggt	ggt	atg	gct	tgt	gct	att	tct	att	ttg	atg	aaa	gat	ttg	gct	147
Ala	Val	Gly	Met	Ala	Cys	Ala	Ile	Ser	Ile	Leu	Met	Lys	Asp	Leu	Ala	
30					35					40				45		
gat	gaa	ggt	gct	ttg	ggt	gat	ggt	atg	gaa	gat	aaa	ttg	aaa	ggt	gaa	195
Asp	Glu	Val	Ala	Leu	Val	Asp	Val	Met	Glu	Asp	Lys	Leu	Lys	Gly	Glu	
				50					55					60		
atg	atg	gat	ttg	caa	cat	ggt	tct	ttg	ttt	ttg	aga	act	cca	aaa	att	243
Met	Met	Asp	Leu	Gln	His	Gly	Ser	Leu	Phe	Leu	Arg	Thr	Pro	Lys	Ile	
			65					70					75			
ggt	tct	ggt	aaa	gat	tat	aat	ggt	act	gct	aat	tct	aga	ttg	ggt	att	291
Val	Ser	Gly	Lys	Asp	Tyr	Asn	Val	Thr	Ala	Asn	Ser	Arg	Leu	Val	Ile	
		80					85					90				
att	act	gct	ggt	gct	aga	caa	caa	gaa	ggt	gaa	tct	aga	ttg	aat	ttg	339
Ile	Thr	Ala	Gly	Ala	Arg	Gln	Gln	Glu	Gly	Glu	Ser	Arg	Leu	Asn	Leu	
	95					100					105					
ggt	caa	aga	aat	ggt	aat	att	ttt	aaa	ttt	att	att	cca	aat	att	ggt	387
Val	Gln	Arg	Asn	Val	Asn	Ile	Phe	Lys	Phe	Ile	Ile	Pro	Asn	Ile	Val	
110					115					120					125	
aaa	tat	tct	cca	aat	tgt	aaa	ttg	ttg	ggt	ggt	tct	aat	cca	ggt	gat	435
Lys	Tyr	Ser	Pro	Asn	Cys	Lys	Leu	Leu	Val	Val	Ser	Asn	Pro	Val	Asp	
				130					135					140		
att	ttg	act	tat	ggt	gct	tgg	aaa	att	tct	ggt	ttt	cca	aaa	aat	aga	483
Ile	Leu	Thr	Tyr	Val	Ala	Trp	Lys	Ile	Ser	Gly	Phe	Pro	Lys	Asn	Arg	
			145					150					155			
ggt	att	ggt	tct	ggt	tgt	aat	ttg	gat	tct	gct	aga	ttt	aga	tat	ttg	531
Val	Ile	Gly	Ser	Gly	Cys	Asn	Leu	Asp	Ser	Ala	Arg	Phe	Arg	Tyr	Leu	
		160					165					170				
atg	ggt	gaa	aga	ttg	ggt	ggt	cat	cca	ttg	tct	tgt	cat	ggt	tgg	att	579
Met	Gly	Glu	Arg	Leu	Gly	Val	His	Pro	Leu	Ser	Cys	His	Gly	Trp	Ile	
	175					180					185					
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Leu	Gly	Glu	His	Gly	Asp	Ser	Ser	Val	Pro	Val	Trp	Ser	Gly	Val	Asn	
190					195					200				205		
ggt	gct	ggt	ggt	tct	ttg	aaa	aat	ttg	cat	cca	gaa	ttg	ggt	act	gat	675
Val	Ala	Gly	Val	Ser	Leu	Lys	Asn	Leu	His	Pro	Glu	Leu	Gly	Thr	Asp	
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gct	gat	aaa	gaa	caa	tgg	aaa	gct	ggt	cat	aaa	caa	ggt	ggt	gat	tct	723
Ala	Asp	Lys	Glu	Gln	Trp	Lys	Ala	Val	His	Lys	Gln	Val	Val	Asp	Ser	
			225					230					235			
gct	tat	gaa	ggt	att	aaa	ttg	aaa	ggt	tat	act	tct	tgg	gct	att	ggt	771
Ala	Tyr	Glu	Val	Ile	Lys	Leu	Lys	Gly	Tyr	Thr	Ser	Trp	Ala	Ile	Gly	
		240					245					250				
ttg	tct	ggt	gct	gat	ttg	gct	gaa	tct	att	atg	aaa	aat	ttg	aga	aga	819
Leu	Ser	Val	Ala	Asp	Leu	Ala	Glu	Ser	Ile	Met	Lys	Asn	Leu	Arg	Arg	
	255					260					265					

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gtt cat cca att tct act atg att aaa ggt ttg tat ggt att aaa gaa 867
Val His Pro Ile Ser Thr Met Ile Lys Gly Leu Tyr Gly Ile Lys Glu 285
270 275 280

gat gtt ttt ttg tct gtt cca tgt att ttg ggt caa aat ggt att tct 915
Asp Val Phe Leu Ser Val Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser 300
290 295

gat gtt gtt aaa gtt act ttg act cat gaa gaa gaa gct tgt ttg aaa 963
Asp Val Val Lys Val Thr Leu Thr His Glu Glu Glu Ala Cys Leu Lys 315
305 310

aaa tct gct gat act ttg tgg ggt att caa aaa gaa ttg caa ttt taa 1011
Lys Ser Ala Asp Thr Leu Trp Gly Ile Gln Lys Glu Leu Gln Phe 330
320 325

taactcgagc ttggttgaac acgttgccaa ggcttaagtg a 1052

<210> 43
<211> 332
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
<400> 43

Met Ala Thr Leu Lys Asp Gln Leu Ile Gln Asn Leu Leu Lys Glu Glu
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His Val Pro Gln Asn Lys Ile Thr Ile Val Gly Val Gly Ala Val Gly
20 25 30

Met Ala Cys Ala Ile Ser Ile Leu Met Lys Asp Leu Ala Asp Glu Val
35 40 45

Ala Leu Val Asp Val Met Glu Asp Lys Leu Lys Gly Glu Met Met Asp
50 55 60

Leu Gln His Gly Ser Leu Phe Leu Arg Thr Pro Lys Ile Val Ser Gly
65 70 75 80

Lys Asp Tyr Asn Val Thr Ala Asn Ser Arg Leu Val Ile Ile Thr Ala
85 90 95

Gly Ala Arg Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln Arg
100 105 110

Asn Val Asn Ile Phe Lys Phe Ile Ile Pro Asn Ile Val Lys Tyr Ser
115 120 125

Pro Asn Cys Lys Leu Leu Val Val Ser Asn Pro Val Asp Ile Leu Thr
130 135 140

290578US0XPCT.ST25.txt

Tyr Val Ala Trp Lys Ile Ser Gly Phe Pro Lys Asn Arg Val Ile Gly
145 150 155 160

Ser Gly Cys Asn Leu Asp Ser Ala Arg Phe Arg Tyr Leu Met Gly Glu
165 170 175

Arg Leu Gly Val His Pro Leu Ser Cys His Gly Trp Ile Leu Gly Glu
180 185 190

His Gly Asp Ser Ser Val Pro Val Trp Ser Gly Val Asn Val Ala Gly
195 200 205

Val Ser Leu Lys Asn Leu His Pro Glu Leu Gly Thr Asp Ala Asp Lys
210 215 220

Glu Gln Trp Lys Ala Val His Lys Gln Val Val Asp Ser Ala Tyr Glu
225 230 235 240

Val Ile Lys Leu Lys Gly Tyr Thr Ser Trp Ala Ile Gly Leu Ser Val
245 250 255

Ala Asp Leu Ala Glu Ser Ile Met Lys Asn Leu Arg Arg Val His Pro
260 265 270

Ile Ser Thr Met Ile Lys Gly Leu Tyr Gly Ile Lys Glu Asp Val Phe
275 280 285

Leu Ser Val Pro Cys Ile Leu Gly Gln Asn Gly Ile Ser Asp Val Val
290 295 300

Lys Val Thr Leu Thr His Glu Glu Glu Ala Cys Leu Lys Lys Ser Ala
305 310 315 320

Asp Thr Leu Trp Gly Ile Gln Lys Glu Leu Phe
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<210> 44

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<400> 44

atatatggat ccgcgtttat ttacctatct c

31

<210> 45

<211> 31
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 <220>
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 <400> 45
 atatatgaat tctttgattg atttgactgt g 31

 <210> 46
 <211> 34
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic primer

 <400> 46
 atatatctcg aggccagcta acttcttggt cgac 34

 <210> 47
 <211> 31
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic primer

 <400> 47
 atatatgaat tctttgattg atttgactgt g 31